b) a wavelength-disperser that separates said multi-wavelength optical signal by wavelength into multiple spectral channels having a predetermined relative arrangement;

c) an array of beam-manipulating elements positioned to correspond with said spectral channels; and

d) an array of optical detectors, including a plurality of optical detectors each corresponding to a unique one of said spectral channels;

wherein said beam-manipulating elements are individually controllable, so as to direct said spectral channels into said array of optical detectors in a time-division-multiplexed sequence.

Claim 8 (amended, clean version)

The optical apparatus of claim 1 wherein said array of optical detectors comprises an element selected from the group consisting of PN photo detectors, PIN photo detectors, and avalanche photo detectors.

Claim 18 (amended, clean version)

An optical apparatus, comprising:

a) an input port, providing a multi-wavelength optical signal;

b) a polarization-separating element that decomposes said multi-wavelength optical signal into first and second polarization components;

c) a polarization-rotating element that rotates a polarization of said second polarization component by approximately 90-degrees;

d) a wavelength-disperser that separates said first and second polarization components by wavelength respectively into first and second sets of optical beams;

e) a beam-focuser that focuses first and second sets of optical beams into corresponding focused spots;

f) an array of beam-manipulating elements positioned to correspond with said first and second sets of optical beams;

g) at least one first optical detector for monitoring power associated with said first polarization component; and

h) at least one second optical detector for monitoring power associated with said second polarization component;

wherein said beam-manipulating elements are individually controllable, such that first and second optical beams associated with each wavelength are directed into said at least one first optical detector and said at least one second optical detector, respectively, in a time-division-multiplexed sequence.

Claim 29 (amended, clean version)

The optical apparatus of claim 18 wherein said at least one first optical detector and said at least one second optical detector each comprises a single optical detector.

Claim 31 (amended, clean version)

The spectral monitoring apparatus of claim 18 wherein said at least one first optical detector and said at least one second optical detector each comprises at least one element selected from the group consisting of PN photo-detectors, PIN photo detectors, and avalanche photo detectors.

Claim 32 (amended, clean version)

A method of spectral power monitoring using a time-division-multiplexed scheme, comprising:

a) providing a multi-wavelength optical signal;

b) separating said multi-wavelength optical signal by wavelength into multiple spectral channels; and

c) directing said spectral channels into an array of optical detectors, such that each of said spectral channels is received by a unique one of said optical detectors in a time-division-multiplexed sequence.

Claim 35 (amended, clean version).

A method of optical spectral power monitoring, comprising:

a) providing a multi-wavelength optical signal;

b) decomposing said multi-wavelength optical signal into first and second polarization components;

c) rotating a polarization of said second polarization component by approximately 90-degrees;

d) separating said first and second polarization components by wavelength respectively into first and second sets of optical beams;

e) focusing said first and second sets of optical beams into corresponding focused spots;

f) impinging said first and second sets of optical beams onto an array of beam-manipulating elements; and

g) individually controlling said beam-manipulating elements, such that said first set of optical beams is directed into at least one first optical detector in a time-division-multiplexed sequence, whereby said at least one first optical detector monitors power associated with said first polarization component, and said second set of optical beams is directed into at least one second optical detector in a time-division multiplexed sequence, whereby said at least one second optical detector monitors power associated with said second polarization component.